

Mar. 2011

Vol. 120

Science Teachers' Association Greetings Friends & Colleagues

Greetings friends and Colleagues,

It is hard to believe that February is over. What a crazy February it was with all the snow, wind, blizzards and blocked roads. At least we know that spring can't be too far away. Not that we can't get a lot more snow, but at least it should warm up a bit.

The conference was once again outstanding and I thank all of you who donated your time to present or help with the conference in any way. The end of the conference brought sadness across the State when we lost Bobbie Traxinger, our SDSTA secretary, to a heart attack. All who knew Bobbie, loved her. She was a dedicated wife, mother, friend and teacher. Her dedication as a teacher was evident from the outpouring from students and former students at her funeral. One of my favorite memories of Bobbie was last year when she was presented, from Larry Browning, the "Physical Science Teacher of the Year" award. Larry was reading all the wonderful things that students and colleagues said about Bobbie and after every sentence, Bobbie turned to Larry and whispered, "All teachers do that!" Her humbleness was evident in all that she did. My heart goes out to her husband Patric, her wonderful children; John (Brienne), Megan & Luke; her precious grandson, Brody; and to the Douglas High School staff and student body who must miss her terribly. Bobbie died as a result of a complete occlusion of the LAD (Left Anterior Descending) coronary artery. When this heart attack happens, there is less than a 5 minute window to get to the hospital. I know that the teacher in Bobbie would want us to learn several things from this. First, cherish each day and recognize that each day is a gift. Second, make sure your loved

ones know how much you love them. Third, enjoy life because we never know how long we have.

Since this tragedy, I have been doing some research. Every heart attack is different and everyone experiences unique symptoms. There are, however, some common symptoms we should all be aware of.

- The obvious one-- Uncomfortable pressure, fullness, squeezing or pain in the center of the chest lasting more than a few minutes.
- Pain spreading to the shoulders, neck or arms. The pain may be mild to intense. It may feel like pressure, tightness, burning, or heavy weight. It may be located in the chest, upper abdomen, neck, jaw, or inside the arms or shoulders.
- Lightheadedness, fainting, sweating, nausea or shortness of breath.
- Increased or irregular heart rate.
- For women, the symptoms are often very subtle and may occur several weeks before an actual heart attack. These symptoms include unusual fatigue, sleep disturbances, shortness of breath, indigestion, and weakness in the arms.

If you or anyone you know experiences these symptoms, get help immediately.

RIP Bobbie Traxinger.

Thank you for touching the lives of so many....we will never forget you.

Molly TenBroek - President, SDSTA

Feb. 2010-Feb. 2012

MEanderthal App Joins Other Human Evolution Resources From The Smithsonian

Do you look like your relatives? Your pre-historic relatives? Try morphing yourself backward in time with MEanderthal. You might be surprised when you see your face transformed into the face of an early human with the Smithsonian Institution's first-ever mobile app. Found on both the Apple and Android App store, the MEanderthal App is the latest resource for you and your students from the Smithsonian's Human Origins Program. Visit the Human Origin's website for a variety of useful tools under the Education and Resources sections: a downloadable Educa-

tor Guide to the exhibition hall for class field trips; links to human evolution lesson plans; a private discussion forum for teachers; a human evolution glossary; a section on What's Hot in Human Origins? so you can keep up with the latest discoveries; and an introduction to human evolution.

There is also a 3D Collection featuring rotatable scans of fossils and artifacts, and a series of interactive resources under Human Evolution Evidence and Human Evolution Research that is great for stu-

dents - Mystery Skull, Adventures in the Rift Valley, Fossil Forensics - as well an interactive timeline featuring different species, fossils, human evolution milestones, and climate change evidence.

Explore the Smithsonian's Human Origins Program at <http://www.humanorigins.si.edu>.



Ideas about science gleaned from tests of 5th and 6th graders:

- When people run around and around in circles we say they are crazy. When planets do it we say they are orbiting.
- The law of gravity says no fair jumping up without coming back down.
- To most people solutions mean finding the answers. But to chemists solutions are things that are still all mixed up.

Canopy in the Clouds

Canopy in the Clouds (www.canopyinthecLOUDS.com). The project uses innovative and immersive media from the perspective of a tropical montane cloud forest to serve as a platform for inquiry-based, K-12 earth and life science education. We are particularly excited to offer over 25 lesson plans on themes such as water, weather, soils, ecology and the process of science

focused on 6-8th grades. All materials are normed to national science education standards, peer-reviewed by a team of scientists and educators, and made available free of cost via our website. Funding is provided by the National Geographic Society, National Science Foundation and the Tropical Science Center of Costa Rica.



Assessment Resources on the Web:

[Science College Board Standards for College Success](http://professionals.collegeboard.com/profdownload/cbscs-science-standards-2009.pdf) Science College Board Standards for College Success are standards for grades 6–12 that identify the discipline-specific content knowledge and scientific practices college faculty expect students to possess by the time they enter college. The standards focus on science practices and clear, measurable performance expectations. Using these standards, educators can design curriculum, instruction, and assessments to prepare students for introductory college-level science courses.
<http://professionals.collegeboard.com/profdownload/cbscs-science-standards-2009.pdf>

[Environmental Quiz](http://www.proprofs.com/quiz-school/story.php?title=environmental-quiz_3) The Forest Resource Environmental Education Network's Environmental Quiz was developed at the University of Minnesota for a course dealing with a broad array of economic, social, and environmental issues. College students, teachers, high school students, boy scouts, community leaders, and forest products–industry employees across the United States have taken the quiz. It can be used as the first part of a teaching unit to help students maintain interest in the discussion, stimulate questions, or provide a basis for more in-depth investigation of issues raised.
http://www.proprofs.com/quiz-school/story.php?title=environmental-quiz_3

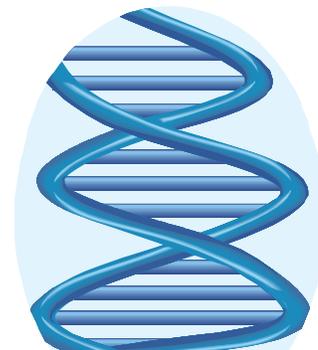
Spend A Week In Washington DC This Summer Updating Your Genomics Curriculum

Each summer the NIH invites college-level biology instructors to attend a weeklong update on genomic science at the National Human Genome Research Institute. The course is free to successful applicants and covers per diem and lodging for the week. Schools or individual instructors are responsible for travel costs. Personalized medicine, microbiomes, nanotechnology, epigenetics,

genetic counseling, and bioinformatics are typical course seminars.

For application materials, email Dr. Jeff Witherly at jlw@mail.nih.gov. An overview of the last course and eligibility guidelines are at <http://www.genome.gov/shortcourse/>.

Registration is open until March 25, 2011.



New Science Teachers Academy

As an NSTA Fellow, you will receive:

- Comprehensive NSTA membership and its benefits;
- An opportunity to participate in a variety of web-based professional development activities, including web seminars
- Unlimited use of resources including vetted web links for lesson plans, links to state and national standards, professional organizations, safety tips and more;
- An opportunity to participate in e-Mentoring developed by NSTA, the New Teacher Center, and Montana State University that includes:
- e-Mentoring with an experienced teacher in the same science discipline and grade level;
- Facilitated online curriculum that focuses on science content and applicable classroom pedagogy;
- Access to a nationwide, online network of science educators and scientists that facilitate the exchange of information, ideas, and resources;
- Accommodations, coverage of airfare, food, and registration fees to attend the NSTA national conference;

Eligibility

New Science Teacher Academy Fellows must be:

- Entering their second or third year of teaching
- Working a schedule with 51% of their classes in middle or high school science.

Former Academy Fellows are not eligible.



Apply to the academy now » <http://www.nsta.org/academy/2011/FellowApplication.aspx>

BioBuildingWorkshop 2011 @ MIT

High school and college biology educators are invited to apply to the BioBuilding2011 workshop @ MIT. This week long, professional development class will prepare educators to bring biological engineering and synthetic biology into their classrooms and laboratories. The workshop will include:

lectures that connect the engineering/science/math and technology aspects of these fields

labs and classroom activities taught from the online BioBuilder.org resource,

Lunchtime discussions with members of MIT's synthetic biology community activities that address human practice questions such as the safety, security, economics and wisdom of engineering novel biological systems

This workshop will run from August 1st-5th, 2011. Attendees will receive a \$500 stipend, lunch each day, parking validation and 67.5 PDPs. Attendees must commit to carry out a BioBuilder activity in the 2011-2012 academic year, and provide feedback

on the effort.

For more information, or to apply, please visit http://openwetware.org/wiki/BioBuilding2011_workshop_@_MIT. The NSTA New Science Teacher Academy, cofounded by the Amgen Foundation, is a professional development initiative created to help promote quality science teaching, enhance teacher confidence and classroom excellence, and improve teacher content knowledge.

Cell Biology Activity: http://www.proprofs.com/quiz-school/story.php?title=environmental-quiz_3

Cell Membrane:

1. Sketch a section of the membrane showing the phospholipids and proteins. Be sure to label them.
2. Define Hydrophilic:
3. Define Hydrophobic:
4. Draw a single phospholipid and label the hydrophilic and hydrophobic portions.
5. What are the three types of proteins found in the membrane? Give a brief explanation of what they each do.
 - a.
 - b.
 - c.
6. What is the difference between a carrier and a channel protein?
7. Define endocytosis. Sketch a cell undergoing endocytosis.

Good Hair analysis site with human and animal hair

http://www.fbi.gov/hq/lab/fsc/backissu/jan2004/research/2004_01_research01b.htm The Forensics Project

<http://www.bergen.org/EST/Year5/index.htm> Good directions and background information on hair, spatter, and blood typing

Forensics

Lipstick Chromatography: Catch the Kisser!

Purpose: To determine which colors are combined to produce the shade of lipstick that you see. By separating out these colors, differences can be seen in color combinations and distances between color bands. This information will help determine the brand and shade of lipstick found at the crime scene.

Materials:

lipstick samples
Crime scene lipstick sample
Large "beaker" or chromatography jar
Toothpicks
Acetone
Tin Foil
Sheet of chromatography paper

Procedure:

1. Using a **pencil** draw a line across the bottom of the chromatography paper 2 cm from the bottom.
2. Use a toothpick to scrape a **small** amount of lipstick and place on the pencil line. Do this for each sample - placing the samples and crime scene sample at least 1.5 cm apart from each other. Label each the strip with the lipstick names and crime scene unknown in **pencil!!!!**.
3. Pour a small amount of acetone into the battery jar (looks like a large beaker).
4. Staple the two edges of the chromatography paper to form a "roll" being careful NOT to overlap the paper. Place into the jar with the acetone - Allowing the bottom of the fil-

ter paper to touch the acetone, but do not let the lipstick touch the acetone.

5. Cover with aluminum foil and wait for approximately 10 minutes, and then measure the distance the lipstick has traveled from the original pencil line. Remove and draw a pencil line to mark how far the acetone solvent traveled.
6. When not in use, cover the beaker with a watch glass to prevent the acetone from evaporating.
7. Circle any visible color bands.
8. Expose to the short wave UV light - CAREFUL not to look directly at the light.
9. Circle any fluorescent color spots/bands.
10. You can also look at lip prints!

Science & Technology Smithsonian Education has developed science and technology lessons for K–12 students. They cover a range of topics and contain background information and activities incorporating materials, images, and video clips from the Smithsonian collections. Titles include *The Universe: An Introduction* (grades 4–12); *Minerals, Crystals, and Gems: Stepping Stones to Inquiry* (grades 3–8); and *Dinosaurs Were Real* (grades preK–3).

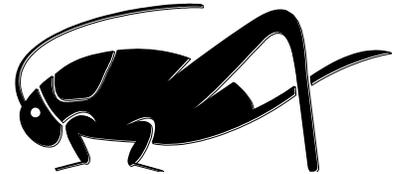
http://www.smithsonianeducation.org/educators/lesson_plans/science_technology.html

Meteorology Resource Guide *Meteorology: An Educator's Resource for Inquiry-Based Learning for Grades 5–9* can supplement existing Earth and space science curricula. The inquiry-based guide can be used in both formal and informal educational settings and aims to generate excitement about meteorology by encouraging learners to take increasing responsibility for their education. The guide can be downloaded in its entirety or by chapter.



<http://www.nasa.gov/centers/langley/science/met-guide.html>

Science Companion Free Online Pilot Science Companion, a preK–6 inquiry science curriculum, is offering a free online pilot program via a new wiki site. Eight learning modules include Rainbows, Colors, and Light (grades preK–K); Motion (grades 1–3); Habitats (grades 3–5); and Earth's Changing Surface (grades 4–6). Teachers can also preview an annotated lesson, Ob-



serving Crickets (grades 1–2), which highlights how science can provide a meaningful context for mathematics.

<http://science-companion.wikispaces.com/>



Video Science Watch short clips of science experiments with accompanying commentary and teaching tips, such as how to add inquiry value to some of the classic science experiments and demonstrations. The clips, targeted to new teachers and teachers who lack specific training in elementary science teaching methods, include Slime!, Smoke Spiral, Classroom Barometer, and Pinhole Viewer. <http://www.sciencehousefoundation.org/videoscience.html>

DnaTube: DnaTube features thousands of video-based studies, lectures, seminars, flash animations, and PowerPoint presentations that explain biological concepts. Users can search clips in more than 30 categories or select by classifications such as "Recently Added" and "Most Watched." The videos are most appropriate for high school and college classrooms, but with categories such as "Funny Accidents" and "Strange Experiments," anyone interested in science can find something to watch.

<http://www.dnatube.com/>

The Inner Life of a Cell: *The Inner Life of a Cell* is an award-winning animation that takes you on a journey

through the microscopic world of a cell. The video was created by BioVisions—a collaborative community of Harvard University scientists, teaching faculty, students, and multimedia professionals. Educators from middle school to college can share this eight-minute animation with their students. The video combines impressive multimedia techniques with rigorous scientific models of how biological processes occur.



<http://multimedia.mcb.harvard.edu/>

Talking Glossary of Genetic Terms:

Talking Glossary of Genetic Terms includes more than 100 color illustrations and more than two dozen three-dimensional animations that demonstrate genetic concepts at the cellular level. Created by the National Human Genome Research Institute, the glossary has been reviewed by more than 30 educators, and the terms align with biological concepts addressed by the National Science Education Standards. The site also features a 10-term quiz to test your knowledge about genetic terms commonly found in news reports, conversation, and K–16 science classrooms. <http://www.genome.gov/glossary/>

SDSTA 2011

2010 PAEMST—Science

Dr. Angela Hejl—Yankton High School—receiving her award at the presentation ceremony in Washington DC in Dec. 2010



2011 PAEMST State Finalists—Deborah Thorp and Alison Batie



2011 Physical Science Teacher of the Year—Mark Horan, Mitchell Senior High



Super teacher aka Paul Kuhlman

2010 Outstanding Biology Teacher Robin Cochran-Dirksen, Lead-Deadwood—award sponsored by the NABT and Sanford Health



Distinguished Service Award for Math—James Stearns with presenter Cindy Kroon



Friend of Science—Dr. Matt Miller, SDSU with presenter Molly Tenbroek



"Superhero" SDSTA/SDCTM 2011 Conference

Teachers are superheroes when:

- When they stay active in education even after they retire.
- They come to a conference on their day off.
- They balance life with their alter-ego
- Don't teach subjects, they teach students
- Make their kids wonder...
- They tutor students during their prep time
- They communicate – good and bad – with parents
- They give students their home phone number for when they need help



I am a superhero because:

- I have registered for this conference and attended 5 sessions
- I am not afraid to look silly if it helps students learn.
- I gave up three days of my own time to be a part of this conference.
- I care about my kids.
- Because of the kids I work with everyday.
- I am becoming a math teacher.
- I want all of my students to succeed.
- Doing more with less.
- I "sparkle" with my students when we problem solve.
- Kids are my passion.
- I teach all subjects except PE and music.
- I care about kids.
- Because I'm Jean Gomer's cousin

What makes you an everyday hero?

- I remember that every student is an amazing work of art.
- Inspire
- I teach 23 first graders!
- I love what I do.
- I never give up on my students
- Students learn the rope to tow by the star of the classroom show... is it any wonder that teachers are considered superheroes!
- 5/6 preps everyday
- I am grateful for the trouble makers
- I help mold tomorrow's leaders.



Teach to Learn: June 9-11th at the Sanford Center in Sioux Falls

This program is designed to empower educators in how to develop and implement lesson plans using project-based learning to educate students in biomedical sciences. Middle and High School Educators are invited to enroll in a 2 1/2 day workshop to learn project-based learning lesson plans with hands-on activities. At the culmination of this symposium, teachers will be provided a “lab in a box” kit that provides all reagents and tools necessary for teaching the new lesson plans in their classroom. At the second level, The PROMISE staff will visit participating educator’s classroom to assist/facilitate the lesson plans and/or teach more advanced extensions of the lesson plans. Lesson plans will be developed to minimize overlap between years, so that the same educators can enroll in the summer symposium for multiple years without redundancy. Sample lessons to be covered:

Drug Discovery—Students are challenged to isolate a plant protein thought to have chemopreventive properties.

Diagnosing Diabetes—Students analyze simulated blood plasma samples testing glucose and insulin levels.

Genetic Screening—Students learn about inheritance and genetic disorders.

Protect the Herd—Students learn the immune response & vaccine development in response to a viral outbreak

Molecular Evolution—Students predict and analyze evolutionary relationships.



For more information, contact us at sanfordoutreach@sanfordhealth.org

Dinosaur Science

Dinosaur Collecting Expedition in South Dakota
Sponsor: The Children’s Museum of Indianapolis

Teachers are invited to join expedition leader and teacher Rick Crosslin on this dinosaur expedition for teachers designed to do the science that normally you only read about in textbooks. Spend two days collecting fossils for The Children’s Museum at the Ruth Mason Quarry — the largest fossil bed of duckbilled dinosaurs in the world. Participants will visit the Black Hills Institute of Geological Research and other sites.

Dates: Monday-Saturday, July 11-16

Special Orientation: May 28, 2011

Times: off-site times vary

Location: South Dakota

Fee: \$795 per person - double occupancy

\$995 per person based on single occupancy

Registration and Full Payment Deadline: May 27

*Fees do not include transportation cost to South Dakota. Hotel cost and lunches on the days out at the dig site are included. While in South Dakota, transportation will be provided by museum staff.

To register, contact Valerie Wells at 317- 334-3317. A \$100 nonrefundable down payment is required at the time of registration. For more information, contact Becky Wolfe at 317-334-4618 or beckyw@childrensmuseum.org.



Wind for Schools SD
Educator Workshop
– April 29, 2011

The Wind for Schools Program and The National Energy Education Development (NEED) Project are proud to present the upcoming Wind for Schools South Dakota Educator Workshop. Classroom teachers involved and interested in the Wind for Schools Program will have a unique opportunity to learn about wind energy, wind generated electricity, and the use of data produced from wind installations in their classrooms. The workshop will be held April 29, 2011 from 8:30 am to 3:30 pm at Douglas Middle School Auditorium, 401 Tower Road, Box Elder, S D.

The workshop is **free to educators on a first come, first served basis**. Breakfast, lunch, classroom materials are provided. To register go to www.sdwind.org

The NEED Project’s mission is to promote an energy conscious and educated society. NEED is the nation’s leading provider of energy education programs and materials to schools. The program will make teaching energy exciting and fun for your classroom. Our goal is to introduce students and teachers to energy through hands-on science activities. NEED works to create high quality materials and training to make learning and teaching about energy fun.

If you have questions or need further information about the Wind for Schools South Dakota Workshop, please contact Wendi Moss at NEED at 800-875-5029 or wmoss@need.org. For more information about the NEED Project visit our website at <http://www.need.org>.



Nomination

The deadline for nominations is April 1, 2011. The nomination form should be completed early enough to ensure that the nominated teacher is given enough time to thoroughly prepare an application that reflects exemplary teaching prior to the application deadline. Applications are due by May 2, 2011.

Nominate outstanding secondary, grades 7-12, mathematics and science teachers now for the 2011 awards. (Nominations for elementary school teachers, grades K-6, will be accepted next year.)

Who is Eligible for 2011?

The following are eligibility criteria for applicants. They must:

- Teach mathematics or science at the 7-12th grade level in a public or private school.
- Hold at least a Bachelor's degree from an accredited institution.
- Be a full-time employee of the school or school district as determined by state and district policies, and teach K-12 students at least 50% of the time.
- Have at least 5 years of full-time, K-12 mathematics or science teaching experience prior to the 2010-2011 academic school year.
- Teach in one of the 50 states or the four U.S. jurisdictions. The jurisdictions are Washington, DC; Puerto Rico; Department of Defense Schools; and the U.S. territories (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands).
- Be a U.S. Citizen or Permanent Resident.
- Not have received the PAEMST award at the national level in any prior competition or category.

State coordinators for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST) Program are available to answer questions about the awards program and provide assistance and mentoring to the nominees and awardees. For South Dakota Science, contact:

Ramona Lundberg

Email: rlundber@itctel.com

103 9th Ave South

Clear Lake, SD 57226

Phone: 605-874-2625

Fax: 605-874-8585



Thank Goodness the Sun is Single By Trudy E. Bell

It's a good thing the Sun is single. According to new research, Sun-like stars in close double-star systems "can be okay for a few billion years—but then they go bad," says Jeremy Drake of the Harvard-Smithsonian Astrophysical Observatory in Cambridge, Mass.

How bad? According to data from NASA's Spitzer Space Telescope, close binary stars can destroy their planets along with any life. Drake and four colleagues reported the results in the September 10, 2010, issue of *The Astrophysical Journal Letters*.

Our Sun, about 864,000 miles across, rotates on its axis once in 24.5 days. "Three billion years ago, roughly when bacteria evolved on Earth, the Sun rotated in only 5 days," explains Drake. Its rotation rate has been gradually slowing because the solar wind gets tangled up in the solar magnetic field, and acts as a brake.

But some sun-like stars occur in close pairs only a few million miles apart. That's only about five times the diameter of each star—so close the stars are gravitationally distorted. They are actually elongated toward each other. They also interact tidally, keeping just one face toward the other, as the Moon does toward Earth.

Such a close binary is "a built-in time bomb," Drake declares. The continuous loss of mass from the two stars via solar wind carries away some of the double-star system's angular momentum, causing the two stars to spiral inward toward each other, orbiting faster and faster as the distance shrinks. When each star's rotation period on its axis is the same as its orbital period around the other, the pair effectively rotates as a single body in just 3 or 4 days.

Then, watch out! Such fast spinning intensifies the magnetic dynamo inside each star. The stars "generate bigger, stronger 'star spots' 5 to 10 percent the size of the star—so big they can be detected from Earth," Drake says. "The stars also interact magnetically very violently, shooting out monster flares."

Worst of all, the decreasing distance between the two stars "changes the gravitational resonances of the planetary system," Drake continued, destabilizing the orbits of any planets circling the pair. Planets may so strongly be perturbed they are sent into collision paths. As they repeatedly slam into each other, they shatter into red-hot asteroid-sized bodies, killing any life. In as short as a century, the repeated collisions pulverize the planets into a ring of warm dust.

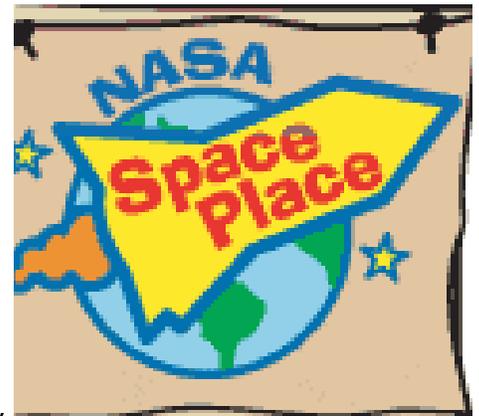
The infrared glow from this



Planetary collisions such as shown in this artist's rendering could be quite common in binary star systems where the stars are very close.

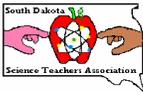
pulverized debris is what Spitzer has seen in some self-destructing star systems. Drake and his colleagues now want to examine a much bigger sample of binaries to see just how bad double star systems really are.

They're already sure of one thing: "We're glad the Sun is single!"



Read more about these findings at the NASA Spitzer site at www.spitzer.caltech.edu/news/1182-ssc2010-07-Pulverized-Planet-Dust-May-Lie-Around-Double-Stars. Visit spaceplace.nasa.gov/en/kids/spitzer/concentration/.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



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This unique program, developed by NASA, will offer 32 science, technology, engineer-

ing, and mathematics (STEM) middle and high school teachers a rare opportunity to work beside NASA engineers and mentors during a two-week *paid* internship focusing on aeronautics modeling and simulation at a NASA facility during July 2011. Contact Olivia Rice at 919.541.7011 or onix@rti.org. You can find more information about the program as well as the application packages by visiting <https://simaero.rti.org>.

Unearthing the Connection between Earth and Physical

Science" workshop is in the planning stage at Mount Marty this summer. For more information Contact :
Julie.Dahl@bhsu.edu

NASA Artifact Screening opportunity alert

The next period of opportunity is just about to begin. Please review the Artifact Module User Guide information available at http://gsaccess.gov/htm/nasa/userguide/NASA_User_Guide.doc, which is posted on the website: <http://gsaccess.gov/NASAWel.htm>.

Change of Address

If you are about to move, please send us an email to update your address. (Bulk rate mailings are required to update their addresses every 60 days.) THANKS.

Membership Expired

The upper right of your mailing address label shows the date your membership is paid through. If it's older than 2/1/2011, it's time to renew or you will not receive the May Newsletter. Thanks for your attention.

The **SDSTA** Newsletter is published four times a year. The March issue (this one) is mailed to 160 paid members, 50 that need to renew, and several to other science organizations.

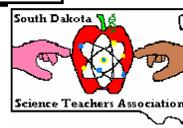
The Membership year in SDSTA starts with the February conference and ends the first of February. Dues are due at each conference for member discount rates.

SDSTA members may give a one year free membership to their student teachers by submitting the student teacher's name & address.

One **free conference registration** is given away to the SDSTA member that has made a submission to the newsletter (or given a presentation at the conference) and has referred at least three new members.

Members may also earn a 10% finders fee for any science related ads placed in the newsletter. Our rates are \$100 per page (or 3 to 4 quarter pages) or insert per issue or \$300 per page to place an ad in four consecutive issues.

Mail to: James Stearns, SDSTA Treas
15 North Fifth Street
Groton, SD 57445

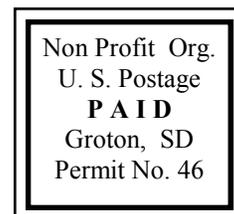
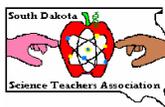


\$ 5 Student
\$ 5 K - 6
\$ 5 Retired
\$ 20 All Others

Name _____ Home Phone _____
Home Address _____ E-mail: _____
City _____ State _____ Zip _____
Your School _____ School Phone _____
School Address _____
City _____ State _____ Zip _____
Your area K - 6 7 - 8 9 - 12 College Other _____
(circle one)

South Dakota Science Teachers' Association

Julie Olson and James Stearns
Editors, S D S T A Newsletter



15 North Fifth Street
Groton, SD 57445-2024

ADDRESS SERVICE REQUESTED

Check mailing label for expired membership



If it's 2/1/2011 or older
it's time to renew.

Calendar of Events Calendar of Events

Did you watch the last shuttle flight? — <http://www.nasa.gov>

- March 10–13, 2011 National NSTA Convention San Francisco, CA www.NSTA.org
- April 1 Deadline for Nominations to PAEMST - email: rlundber@itctel.com
- April 10 SD Wind Applications are due - wind@pie.midco.net
- April 22 Earth Day - Check out Educator Trainings at www.wetland.org
- April 29 Wind for Schools www.sdwind.org wind@pie.midco.net
- May 2 Deadline for Application to PAEMST - www.paemst.org
- June 6-8 Using TI-Nspire in the Classroom in SF - www.tinspire2011.com
- June 9-11 Teach to Learn - Sioux Falls - sanfordoutreach@sanfordhealth.org
- June 20-30 9-12 Physical Science Modeling workshop at BHSU - andyjohnson@bhsu.edu
- June 30-July 24 National Youth Science Camp - www.nysc.org/w/2011.html
- July 10-16 EinsteinPlus 2011 workshop - Perimeter Institute - www.einsteinplus.ca
- July 11-16 Dinosaur Science — Dinosaur Collecting Expedition in South Dakota
- July 12-16 National Congress on Science Education - Baltimore, Maryland
- Aug or Sept **SDSTA Summer meeting** via DDN (Contact any officer to attend at their site)
- Oct. 27 - 29 NSTA Area Conference—Hartford, Connecticut

Homepage Located At <http://www.sdsta.org>